RESIN GLORY

HIGH GLOSS EPOXY RESIN

INSTRUCTIONS

Technical Data

This 1:1 epoxy resin can be cured under room temperature, 1:1 volume ratio, very easy to operate, with the feature of low viscosity and good flowing property, natural defoaming, anti-yellow, high transparency, no ripple, bright and shiny in surface. It can be widely used for arts coating and crafts casting, like handmade jewellery and mold filling, etc..

Properties before Hardening

Part	A	B
Color	Transparent	Transparent
Specific gravity	1.15	0.96
Viscosity (25℃)	1600CPS	1200MAXCPS
Mixing ratio	A: B = 1:1(volume ratio)	
Hardening conditions	25 ℃×24H or 60℃×3H (2 g)	
Usable time	25℃×35min (50g)	

Properties after Hardening

Hardness, shore D	<75
Withstand voltage, KV/mm	22
Flexural strength, Kg/mm2	28
Volume resistivity, Ohm3	$1x10^{15}$
Surface resistance, Ohmm2	$5X10^{15}$
Thermal conductivity, W/M.K	1.36
Induced electric loss, 1KHZ	0.42
Withstand high temperature, ℃	90C
Moisture absorption, %	<0.15
Compressive strength, Kg/ mm2	8.4

1. SETUP

To start with, make sure that your work surface is clean, free from dust and is level. Cover your work surface, to avoid leaks or drips of the resin, as it can be difficult to remove, after it's hardeners. As well, it is useful to have all molds, and required items for your task next to you.

Make sure that your working area is well ventilated and at a temperature not below 22C/72F (recommended temperature 22-26C/72-79F), wear respirator if ventilation is poor. ALWAYS wear gloves to avoid contact, and possible skin irritation. For best protection wear an apron and sleeves to protect your clothes or have clothes dedicated for resin work, which you would not be afraid to ruin. To avoid contact with eyes, wear protective eyewear.

Please note room humidity, when the relative humidity is higher than 85%, the surface of the cured mixture will absorb moisture in the air, and form a layer of white mist on the surface. So, when the relative humidity is higher than 85%, is not suitable for room temperature curing, suggest to use the heat curing or have dehumidifier. Recommended humidity 50-60%.

2. MEASURE

Before you start measuring decide what you would like to do and how much resin you will need. We recommend to make a little test project (especially if it's your first-time using resin), to avoid unnecessary mistakes, as all resin are slightly different. Make sure that resin and hardener in not below 21C/70F for smoother mixing and to avoid bubbles, as warmer resin has lower viscosity and it's easier to degas bubbles. For best results you can warm both parts by submerge it into a bowl full of warm, NOT hot, water, heat no more than 30C/86F and then mix it (make sure that water not reaching bottle neck and dry them all after bath). If the resin/hardener or working room are too cold, it may happen that the curing process will delay or even stop.

Then with gloves on, measure equally and accurately A and B solutions by volume. Adding too much of either the resin or the hardener will change the chemical reaction and your resin will not cure properly.

If you are mixing with graded cup, you can pour it into one cup, but make sure that you pour the same volume of each element. If cups not graded scale, use two of the same cups, find the line up to which you want to pour, mark two cups that had the same grade and pour your resin and hardener separately, after pour hardener to resin together and make sure that you scrape it as much as possible.

3. MIXING

Equally measured amounts of nicely warm resin and hardener stir together SLOWLY, CAREFULLY and THOROUGHLY for 3 - 5 minutes (5-10 minutes if colder). Not stirring properly will result in a sticky soft resin that will never cure or have sticky spots after curing. Scrape the bottom and sides of your mixing cup as you stir to ensure the entire mixture blends and that there is no remaining unmixed resin or hardener stuck to the sides that may prevent a proper cure. You can expect to see streaks, bubbles and cloudiness as you mix – this is a normal part of the chemical reaction and your resin will turn clear as it mixes and bubble will rise to top when cures. For best mixing it is recommended to pour mixed resin into a fresh cup and mix it again for 20-30sec. After it's mixed you have 30-40min working time. If mixture looks bubbly, please leave it a side for 3-5min, to let them rise.

4. POUR & SPREAD

Pour and spread as you see fit. When you pour the resin out of the mixing cup, avoid scraping the sides in case there is any unmixed resin or hardener stuck to the sides. Pour slowly.

Resin Glory is self-levelling, just make sure that your work surface, where is the piece, level. If you do deep pour, please do it in a few pours to get the best result and to avoid overheating. Allow 8-hour cure time between layers. With little projects in one go you

can pour up to 2cm/0.8in deep, if pouring large project, please reduce depth in order to avoid overheating 1cm/0.4in. For bubble free projects pour in ¼'' layers.

5. FINISH

If bubbles appear, don't worry—most of them will disappear, but for the best result you can remove them with a torch/heat gun by sweeping 6-8 inches from the surface with a slow motion across the top. Just do NOT use too much torch/heat gun or use after resin starts to cure, it can ruin your artwork, leave some marks/pits or burn your mold, it will be difficult to remove your piece, be gentle and sensible. As well you can use toothpick to pop bubbles up or 99% alcohol spray, but after that you cannot use a torch.

6. CURING

Cover your art to protect it from dust and let it sit overnight. In about 24 hours, your piece will be hard to the touch. After 72 hours it will be fully cured.

7. CLEANING

After your piece is stored in a clean safe place, it's time to clean tools. If you use reusable tools, the best time to clean them is when the resin it's still fresh. Wipe your cups, sticks with paper towel to remove resin, in the end you can finish with baby wipes or alcohol wipes/spray. DO NOT clean in the sink, as it can block your drains. Please note that cured resin can be really difficult to remove from some surfaces, so clean any spillage while in the liquid form, use rubbing alcohol, mineral spirit or other mild solvents to clean up.

8. STORAGE

Store at the temperature of 25°C/77F in dry place. Avoid sunlight or high humidity environments.

When opened, use up as soon as possible. Always keep exposure to the air to a minimum time to avoid affecting the quality of the products. The shelf life is one-year unopened container and six months opened in the room temperature of 25°C/77F.

When working with resin do not leave containers open for a long time, every time when finishing measuring seal container.

9. SAFETY

Although Resin Glory is formulated to be non-toxic and virtually odorless, but in some cases it may cause skin/eyes irritation or allergic reaction, therefore **please follow all guidelines set out above** in regards to Personal Protection.

Avoid skin, eye contact, inhalation or ingestion.

1. In case of skin contact: remove contaminated clothing and wash the affected area with soap and water for 15 min.
2. In case of eye contact: remove contact lenses if necessary and flush with water repeatedly for 15 min and do not rub. Promptly seek medical attention.
3. In case of ingestion: promptly seek medical attention.

Keep out of reach of children and pets.
Since conditions of the use of this product are outside of our control, we cannot assume liability for results obtained or damage incurred due to misuse.

GOOD TO KNOW

*Bubble Free Project

Resin Glory's epoxy resin is bubble free when you follow the instructions above. You can certainly achieve a clear, glass like finish to your epoxy resin projects and create work that doesn't have bubbles in it, if you need. The best way to stop bubbles from appearing in your work is to follow those tips:

• Work with warm resin. Warm up if its below 21C/70F
• Pour in ¼'' layers. Resin Glory is designed as a coating or small craft casting resin and is great at other projects too. You can pour up to 2cm/0.8" in depth, but if you want to get bubble free results it should be done in ¼'' layers.
• Mix SLOW and THOROUGHLY. Don't rush, fast mixing creates more bubbles. The same with pouring, take you time.
• Make sure that your added objects not releasing bubbles, like flower, wood... If yes, seal them before adding in.
• Remove any bubbles around your mould edges, as those bubbles can't escape, but once they are lifted, it will rise to the surface.
• In case if you have top bubble, they can be removed with torch/heat gun or 99% alcohol spray, but don't use heat gun after using alcohol.

Don't worry, a lot of people, especially when they are new to resin art do have issues with bubbles at the beginning. But there is a ways to go around it.

What makes Resin Glory safe to use?

Resin Glory is formulated using the highest quality materials and therefore produces no VOCs or fumes. It is a clean system, meaning there are no solvents or non-reactive diluents—everything in it reacts so nothing is free to become airborne and cause health issues. It is also non-flammable in its liquid form. For all these reasons, it is therefore classified as a non-hazardous material and is shippable by air.
Resin Glory Epoxy Resin is Non-Toxic (when used as directed) and Safe for Home Use!

How to colour resin?

You can use a variety of materials to colour epoxy resin; however, each material has advantages and disadvantages you will want to be aware of. DO NOT USE water or oil-based pigment to colour resin.
By itself, Resin Glory is a colourless formula that is used to coat paintings, photos, wood, puzzles, etc. or mold casting jewellery making.
Here are some colorants commonly used with epoxy resin, and what you should know about each one:

1. **Alcohol ink**

Alcohol ink is a very popular resin colorant that offers gorgeous, rich saturation. It is also the specific colorant needed to create resin petri dish art. Alcohol is of course

flammable, so while Resin Glory is non-flammable on its own in its liquid state, this is not the case once alcohol ink is added to the mix. For that reason, a torch should not be used on resin that contains alcohol ink. As well, ink tends to move into the centre when starting the curing process in the mold, so don't be surprised, there are techniques to get event results.

2. **Mica Powder**

There are many colours to choose from, for best results use the high-quality mica powders. You can do crafts with one colour or blend a few colours together by mixing in separate pots and pouring in one mold and gently blending them, not mixing too much if you like to see few colours(dirty pour), the same you can do on canvas. As well, before pour, you can brush your mould with mica powder, this way you will get shiny/coloured surface of your project.

3. **Acrylic**

You can actually use acrylic paint with Resin Glory, but because acrylic is a plastic and has a matte finish, it tends to take away the glossiness of the resin. Generally, people who work with resin like the glossiness of it and will want to preserve that look or you need a coat finished piece.

How much colour should I add to Epoxy Resin?

No matter which colorant you choose, DO NOT EXCEED 5% COLORANT to the total volume of Resin Glory as this will affect the delicate balance needed for the chemical reaction to occur properly. If it's exceeded, your craft piece can become soft, sticky or lose heat resistance properties and make sure that your colourant is mixed THOROUGHLY. Generally, you don't need very much colorant to saturate the entire transparent mixture.

What is Resin Glory heat resistance?

The maximum temperature that Resin Glory can tolerate, after 21 days of cure, is 200F or 93C. At temperatures as high as that, the cured pieces may become a little flexible but once they cool off, they will harden up once again. Typically, the heat generated from a hot mug will not damage the resin surface on a coaster.

But be aware that cured resin products it's not flame resistant, keep away from the flame sources. If you add colourant or any other materials to the resin, the heat resistance can be lower.

How to flood coat pieces?

After good sanding, make sure that your piece is dry and clean from dust. Once your mixture is ready, if your project is not rotating like tumbler it is recommended to leave resin slightly thick it up for 20-40min depending on the volume and temperature you have. When it becomes thicker, just apply on your piece and let it run, make sure that you cover all areas and gently rub it in with a gloved hand or stick, baby sit sides. After pouring there is around 1h window where you can add resin and it's still level itself, so if you notice some imperfections, scoop resin and spread on that place.

How many coats to add to my art work?

It can be enough for one coat, but consider that some projects will require two coats- a seal coat (to cover porous, moist absorbing surfaces) and a flood coating.
As well, if you like a thicker layer, you can add more than one coat. To prevent flow over, you can dam the edges by using masking tape or strips of hard plastic to create a temporary barrier. If you like that flow, but don't like drips on the back of your piece, you can put painter tape on the back next to the edges, just remove it before full cure, 24-hour ends.

How to Embed/Coat objects?

Porous materials (corks, shells, coins, etc.) can release bubbles into the resin and will first need to be covered with a thin seal coat of epoxy. Make sure this seal coat has dried for at least 8 hours before embedding your objects you'd like to embed – if it's too light it will float to the surface. You can use clear craft glue to preserve paper, photographs and fabric before coating them with resin. Use a flat scraper to push air bubbles out from under the surface, and make sure glue is completely dry before coating with epoxy.
Note that paper, fabric and synthetic flowers or other natural materials can translucent or change colour under epoxy. Perform a spot test to see how the materials you plan to embed/coat will react and if needed you can use sealing products to prevent colour change.
If you like to put dried flowers, the best way to do that is in layers: add one layer of resin, then embed the flower, after 8 hours you can add a top layer to cover raised flowers.
The same process can be used with heavy glitter, just glitter needs to be added in both layers or it can be added when resin gets thicker, if you want that it looks more evenly in your craft piece, but be careful when you mix in.
There are different types of glitter, most of the glitter sinks in the bottom no matter what. For best results check before buying and test before making your piece.

How to fix small imperfections, like pits, marks, top bubbles?

First, sand down the entire surface of your piece with coarse sandpaper (we use 80-1000 grit sandpaper). Sanding will not only fix the imperfection, but will but will make a better bonding surface between the first and second layers of clear epoxy.
Note. Respirator must be worn at all times when you do sanding. Recommended to use wet sanding.
It will look very scuffed in the short term, but don't worry, once you pour the second coat on top, all of those sanding marks will disappear.
Wipe off any sanding debris before pouring your next coat of well-measured, well-mixed Resin on top, then cover with a dust cover to make sure you avoid any of those imperfections a second time and you should be good to go!

How to fix soft sticky spots?

If, after a day of curing, you've noticed some soft sticky spots on the resin, it means either one of two things: either the delicate 1:1 balance of epoxy resin and hardener was off, or the material just wasn't mixed thoroughly.

Clear epoxy Resin that hasn't cured will stay sticky until steps are taken to fix it. You'll need to scrape off any of the unmixed material and re-apply a fresh coat of resin glory, and your piece will look as good as new!

How does temperature affect resin?

If you've put the resin epoxy in a warm water bath or if you're working in a warm environment, the working time will be decreased by about 10-15 minutes. The cure time may also be decreased. Recommended room working and curing temperature 22-26C/72-79F.

Visit our website for more info https://www.resin-glory.com or if you need any help, please contact us at info@resin-glory.com